

REMARKS

The present invention relates to a curable composition.

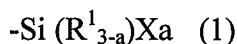
In the Office Action dated November 5, 2009, in the Office Action Summary it was indicated that claims 1-23 were rejected, the Examiner acknowledged Applicant's Information Disclosure Statement filed July 14, 2009, and reiterated acknowledgement of Applicant's claim to priority and receipt of the certified copies; it is also appreciated that the Examiner did not repeat, and is understood to have withdrawn, the objection to the specification.

At page 2 of the Office Action, the Examiner indicated a response to Applicant's earlier arguments. At page 3, claim 21 was rejected under 35 U.S.C. § 112, first paragraph. At pages 3-5, claims 1-3, 5-10, 13-14, 16-17 and 19-23 were rejected under 35 U.S.C. § 102(b) based on U.S. Patent 4,983,700 (Yukimoto). Lastly, at pages 6-7, claims 4-10, 12-15, and 18 were rejected under 35 U.S.C. § 103(a) based on Yukimoto.

In this responsive Amendment, claims 1 and 4 have been amended, including incorporation from claims 5 and 22 into claim 1, and amended claim 4 is supported, e.g., by Synthesis Example 8. Accordingly, claims 5 and 22 have been canceled, as well as claim 21 (thereby obviating the rejection under 35 U.S.C. § 112, first paragraph).

Below, Applicant explains in further detail how the present claims distinguish over the Yukimoto reference and are non-obvious in view thereof, based on which it is respectfully requested that this Amendment be entered and the present remaining claims allowed forthwith.

The presently claimed invention relates to a curable composition which comprises an organic polymer (A) containing reactive silyl groups represented by the general formula (1) given below wherein a is 3 and an organic polymer (B) containing an average of 0.5 to 1.0 reactive silyl groups represented by the general formula (1) given below per molecule.



wherein R^1 represents an alkyl group containing 1 to 20 carbon atoms, an aryl group containing 6 to 20 carbon atoms, an aralkyl group containing 7 to 20 carbon atoms or a triorganosiloxy group represented by $(\text{R}')_3\text{SiO}-$ (in which the three R' groups may be the same or different and each represents a monovalent hydrocarbon group containing 1 to 20 carbon atoms) and, when there are two or more R^1 groups, they may be the same or different, and X represents a hydroxyl group or a hydrolysable group and, when there are two or more X groups, they *may* be the same or different, and a represents 1, 2 or 3, and

wherein the main chain of each of the organic polymers (A) and (B) is an oxyalkylene polymer.

The curable composition of the present invention according to amended claim 1 has, *inter alia*, the following distinctive technical features.

A **first** is that the curable composition comprises the organic polymer (A) containing reactive silyl groups represented by the general formula (1) given above wherein a is 3, and the organic polymer (B) containing an average of 0.5 to 1.0 reactive silyl groups represented by the general formula (1) given above per molecule, and a **second** is that the main chain of each of the organic polymers (A) and (B) is the oxyalkylene polymer.

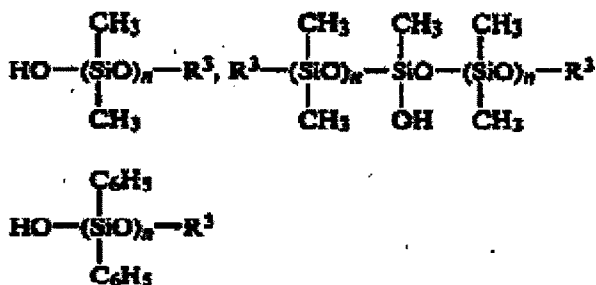
Therefore, amended claim 1 has incorporated the technical features of previous claims 5 and 22.

In general, cured products obtained from an organic polymer having reactive silyl groups containing three hydrolysable groups per silicon atom tend to be very fragile and low in extensibility. Further, when the molecular weight is increased to secure the extensibility, a problem of viscosity increase arises. Thus, it has been earnestly desired that the cured products derived from an organic polymer having reactive silyl groups containing three hydrolysable groups per silicon atom be improved in mechanical physical properties and reduced in viscosity (see e.g., paragraphs [0005] and [0006] in the present specification).

It is an object of the present invention to provide a reactive silyl group-containing room temperature curable composition which can give cured products having good recovery, durability and creep resistance and the mechanical physical properties of which can be adjusted so as to be adequate for the use as a sealing material or adhesive and, further, which is low in viscosity and good in workability. This is achieved by the presently claimed invention, as described below.

Since the curable composition of the present invention employs a combination of the oxyalkylene polymer (A) containing a reactive silyl groups represented by the formula (1) given above wherein a is 3, and the oxyalkylene polymer (B) containing an average of 0.5 to 1.0 reactive silyl groups represented by the general formula (1) given above per molecule, the presently claimed curable composition can achieve the noted objects of the present invention.

Concerning previous claim 22, the Examiner had indicated that Yukimoto discloses the following formulas as examples of the compound having one silanol group



wherein R³ is an alkyl group of 1-20 carbons and n is 0 to 40. The Examiner asserted that the examples above show that the number of reactive silyl groups falls within the claimed range.

I.e., the Examiner's position appears to be that the above-noted compounds of Yukimoto correspond to the organic polymer (B) of present invention.

However, Applicant must observe that the above-noted compound of Yukimoto is a polysiloxane.

Further, Yukimoto discloses that the polymer (A) has 1.1, preferably 1.5 to 4 silicon-containing reactive groups on the average in a molecule (see column 4, lines 13-15). Therefore, Yukimoto does not teach and suggest using the oxyalkylene polymer (B) containing an average of 0.5 to 1.0 reactive silyl groups represented by the general formula (1) given above per molecule, in order to achieve the objects of the present invention.

Therefore, the subject matter of the presently claimed invention is neither taught, suggested, or motivated by Yukimoto, nor has any other reason been presented as to why a person of ordinary skill in the art would choose to go away from the teachings of Yukimoto and arrive at the presently claim invention.

Applicant respectfully submits that the presently claimed invention is novel and unobvious over Yukimoto, and therefore Applicant respectfully requests entry of this Amendment and withdrawal of all rejections.

In view of the above, reconsideration and allowance of claims 1-4, 6-20 and 23 of this application are now believed to be in order, and such actions are hereby earnestly solicited.


If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned attorney at the local Washington, D.C. telephone number listed below.

AMENDMENT UNDER 37 C.F.R. § 1.116
Application No.: 10/587,196

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The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

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